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THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA'S COMMENTS ON ASSIGNED COMMISSIONER'S RULING REQUESTING COMMENTS TO SUPPORT INTEGRATION OF THE EMBEDDED COST OF NATURAL GAS INTO THE WATER-ENERGY COST CALCULATOR

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In accordance with the Rules of Practice and Procedure of the California Public Utilities Commission ("Commission"), The Metropolitan Water District of Southern California ("Metropolitan") respectfully submits these comments in response to the Assigned Commissioner's August 3, 2016 Ruling Requesting Comments to Support Integration of the Embedded Cost of Natural Gas Into the Water-Energy Cost Calculator ("August 2016 Ruling"). Metropolitan provides comments on topic numbers 2 and 4 in the August 2016 Ruling.

I. INTRODUCTION

Metropolitan is a public agency organized in 1928 by a vote of the electorates of 13 Southern California cities. The agency was enabled by the adoption of the original Metropolitan Water District Act ("Metropolitan Act") by the California Legislature "for the purpose of developing, storing, and distributing water" to the residents of Southern California. Currently, Metropolitan is a consortium of 26 cities and water districts that provides drinking water to nearly 19 million people in parts of Los Angeles, Orange, San Diego, Riverside, San Bernardino, and Ventura counties. Metropolitan is a water wholesaler with no retail customers. It provides treated and untreated water

directly to its member agencies. Throughout Metropolitan's 5,200 square mile service area, approximately 250 retail water supply agencies directly serve the population. Metropolitan's member agencies serve residents in 152 cities and 89 unincorporated communities.

As the regional wholesale water supplier in Southern California, Metropolitan is a leader in developing a long-term water resource portfolio of diverse water supply sources that ensures a reliable supply to its customers. Metropolitan has long recognized the important connection between energy and water. For decades, Metropolitan has actively promoted efforts to conserve water and energy through its pioneering region-wide programs in water conservation, water recycling, and groundwater recovery.

Additionally, Metropolitan continually pursues energy efficiency in its facility operations to make certain water deliveries continue to its customers in an economical manner and has developed extensive renewable energy facilities, both hydro and solar, throughout its service area. For example, Metropolitan has 16 recovery hydroelectric generating plants in its distribution system which produce greater amounts of power than is consumed from distribution pumping. These generators are on distribution pipelines located throughout Metropolitan’s service area and have a total capacity of 131 megawatts. The generators produce electricity from the water flowing through the pipelines. Without the hydrogenerators, the energy in the water would be reduced at facilities called pressure control structures and the potential for greenhouse gas free electricity lost.

This month, Metropolitan also began operating a new $10.5 million, 3-megawatt solar facility at the F.E. Weymouth Water Treatment Plant in La Verne. The new facility will offset between 30 to 45 percent of the treatment plant’s electricity use and will eliminate 1,900 tons of CO2 every year. The La Verne solar project is the latest step in Metropolitan’s move toward solar. Metropolitan already has a 1-megawatt solar plant at its Robert A. Skinner Water Treatment Plant in southwest Riverside County and a 1/2–megawatt facility at Diamond Valley Lake Visitor Center in

Hemet. A fourth $6.7 million, 1-megawatt solar installation is expected to launch next year at the District's Joseph Jensen Water Treatment Plant in Granada Hills.

II. COMMENTS

A. Topic No. 2: "Please detail both the embedded and direct use of natural gas in any and all places in the California water system not currently captured by the Water-Energy Cost Calculator"

It is widely reported that California's "Water Sector" uses 19% of the state's electricity and 32% of the state's natural gas not used for power generation. However, these facts are often misinterpreted by attributing the entire water-related energy use to urban water agencies such as Metropolitan.

The original source for these numbers is the California Energy Commission's ("CEC's") 2005 "California's Water – Energy Relationship" report (CEC-700-2005-011-SF, Nov. 2005), which analyzed water-related energy use data for 2001. Based on the information in the report, over 99% of the non-power plant natural gas use is attributed to urban end uses, while 0.14% is used for urban water supply. The table below is adapted from the 2005 CEC report and presents the water-related natural gas use in California for 2001.

USE	NATURAL GAS (MILLION THERMS)	PERCENT OF TOTAL CALIFORNIA USE
Urban Water Supply	**19**	**0.1%**
Waste Water Treatment	27	0.2%
Urban End Users	4,220	31.1%
Agricultural Total	18	0.1%
Total Water Sector Use	4,284	31.6%
Total California Use	13,571	

As shown above, natural gas is not a significant part of urban water conveyance, treatment, and distribution in California. Instead, most natural gas is used directly by various end uses, such as heating water.[1] Natural gas is also embedded in the electricity that retail electric utilities provide to urban water agencies from power plants that are fueled by natural gas. As the amount of renewable energy in the electric utilities energy portfolio increases, the amount of natural gas embedded in electricity will decrease. These uses are not currently captured by the Water-Energy Cost Calculator.

The 31.1% of natural gas attributed to urban end uses represents a direct use of energy by consumers. When the results from the CEC study are compared to California's overall greenhouse gas ("GHG") emissions from all sectors, it is clear that the greatest potential for reducing water-related GHG emissions lies with consumer end uses. Metropolitan and its member agencies have long-standing water conservation programs that also reduce the direct use of natural gas by end users. This includes programs targeting clothes washers, shower heads, and faucets, as well as commercial and industrial processes. Metropolitan has signed MOUs with The Gas Company to facilitate jointly-funded conservation programs for clothes washers. Additionally, the theme for Metropolitan's 2016 Innovative Conservation Program (ICP) is the water energy nexus. The goal of the $500,000 ICP is to pilot test innovative water conservation technologies and approaches that also save energy. It is jointly funded by the The Gas Company, US Bureau of Reclamation, US Environmental Protection Agency, Central Arizona Project, and the Southern Nevada Water Authority.

[1] See, e.g., Bevan Griffiths-Sattenspiel and Wendy Wilson, "The Carbon Footprint of Water," River Network, May 2009, at p. 17.

B. Topic No. 4: "Should we form a Natural Gas/Water/Energy Nexus Working Group? If so, what should its charge be regarding Cost Calculator 2.0 proposals, the Aliso Canyon State of Emergency, or other Natural Gas/Water/Energy Nexus issues"

a. Procedural Background

The Commission commenced this Rulemaking on December 30, 2013, with its Decision Granting Petition and Opening Rulemaking 13-12-011, which granted a Petition for Rulemaking submitted by the Office of Ratepayer Advocates ("ORA"). ORA's Petition requested that the Commission commence a Rulemaking to develop a partnership framework between investor-owned energy utilities and the water sector (both privately owned water utilities regulated by the Commission and public water and wastewater agencies) to co-fund programs targeted to reduce energy consumption by the water sector in supplying, conveying, treating, and distributing water.[2] The Commission expected "the narrower focus of this new rulemaking to encourage increased participation by the water sector stakeholders."[3]

Several months later, a July 1, 2014 Preliminary Scoping Memorandum and Ruling Requesting Comments on Scope and Schedule ("Preliminary Scoping Memo") broadened the scope "to reflect the fuller panoply of issues relating to water savings and the associated embedded energy."[4] The listed issues were: (1) a water-energy cost effectiveness tool; (2) actions to address the water-energy nexus in multiple contexts; (3) inter-agency coordination; (4) intra-agency coordination; (5) water-energy communications nexus; (6) funding and cost sharing; (7) program evaluation; and (8) identify safety concerns raised by the issues identified above and propose steps to address those concerns.

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2 Decision Granting Petition and Opening Rulemaking (Dec. 30, 2013) ("Decision"), at p. 2.
3 Decision, at p. 3.
4 Preliminary Scoping Memo, at p. 6.

Several parties submitted comments on the Preliminary Scoping Memo, including the California Water Association ("CWA"), the San Diego County Water Authority ("SDCWA"), the Association of California Water Agencies ("ACWA"), and the Irvine Ranch Water District ("IRWD"). CWA expressed concern that the broader scope "may divert the proceeding's focus from its original purpose of addressing the cost-effectiveness and co-funding of water-energy nexus programs and make it difficult to accomplish that goal."[5] SDCWA and ACWA recommended that the water-energy communications nexus be addressed in a separate proceeding.[6] Similarly, IRWD was concerned about the inclusion of the water-energy communications nexus.[7]

On February 2, 2015, the Commission issued an Order Amending Order Instituting Rulemaking ("February 2015 Order"). The February 2015 Order expanded the scope of the proceeding to include the following issues: (1) telecommunications issues relating to reducing water use; (2) water-energy programs involving smaller jurisdictional energy utilities; and (3) public safety issues associated with water/energy/telecommunications intersections.[8]

A few months later, on April 27, 2015, an Amended Scoping Memorandum and Ruling ("Amended Scoping Memo") "broadened the scope to reflect the fuller panoply of issues relating to water savings and the associated embedded energy."[9] Some of the new items added to the scope were: (1) a mechanism for continued funding for future additions or updates to the water-energy cost effectiveness tool and user support; and (2) actions related to: (a) the water-energy nexus to address Governor Brown's Executive Order B-29-15, and (b) any future executive

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5 CWA's Comments on the Preliminary Scoping Memo, at p. 3.

6 SDCWA's Comments on the Preliminary Scoping Memo, at p. 8; ACWA's Reply to the Preliminary Scoping Memo, at p. 4.

7 IRWD's Comments on the Preliminary Scoping Memo, at pp. 2-3.

8 February 2015 Order at p. 4.

9 Amended Scoping Memo, at p. 6.

orders or any future legislation relating to the drought emergency or water use reductions.[10] According to the Amended Scoping Memo, this proceeding will be completed within 24 months of the date of the Amended Scoping Memo.[11]

b. Proposal To Expand This Proceeding To Natural Gas Issues

The purpose of this Rulemaking is to develop a partnership framework between investor-owned energy utilities and the water sector to co-fund programs targeted to reduce energy consumption by the water sector in supplying, conveying, treating, and distributing water.[12] However, as explained above, the amount of natural gas used for moving and treating water in California is insignificant. More than 99% of natural gas use is attributed to urban end uses, while only 0.14% is used for urban water supply. Thus, it does not appear that this Rulemaking's goal would be advanced by expanding the scope of the proceeding to include natural gas issues and forming a Natural Gas/Water/Energy Nexus Working Group.

In addition, this proceeding is to be completed by April 27, 2017.[13] Expanding the scope of the proceeding to include natural gas issues might not only divert the focus of the proceeding from its original purpose, but also make it difficult to complete the proceeding by April 27, 2017. If the Commission decides to address the Aliso Canyon State of Emergency and to form a Natural Gas/Water/Energy Nexus Working Group, it should consider doing so as part of a separate proceeding. In this way, the Commission and the parties can focus in this proceeding on the issues that were identified in the Amended Scoping Memo and address them in a timely manner.

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10 Amended Scoping Memo, at p. 7.
11 Amended Scoping Memo, at p. 20.
12 Decision, at p. 2.
13 Amended Scoping Memo, at p. 20.

Lastly, the stated purpose of the August 2016 Ruling "is to support development of recommendations on how to effectively integrate and calculate the associated indirect natural gas energy it takes to move and treat water into the Water-Energy Cost Calculator" (emphasis added).[14] However, because the amount of natural gas used for moving and treating potable water in California is inconsequential, it is not likely that integrating this information into the Water-Energy Cost Calculator would help to achieve the purpose of the August 2016 Ruling.

III. CONCLUSION

Metropolitan appreciates this opportunity to comment and supports the Commission's efforts to develop a partnership framework between investor-owned energy utilities and the water sector to co-fund programs targeted to reduce energy consumption by the water sector. In response to California's GHG emission goals, Metropolitan and many other water utilities are proactively taking steps to reduce water-related energy use. This includes increasing energy recovery in conveyance and distribution systems, developing renewable energy projects such as the hydro and solar facilities described above, performing energy studies, auditing facility energy usage, and other related actions. Additionally, the conservation programs administered by Metropolitan and its member agencies save embedded energy, as well as the direct energy associated with consumer end uses.

For the reasons set forth above, Metropolitan has concerns about integrating the embedded cost of natural gas into the water-energy cost calculator. The purpose of this Rulemaking is to develop a partnership framework between investor-owned energy utilities and the water sector to co-fund programs to reduce energy consumption by the water sector in supplying, conveying, treating, and distributing water. However, the amount of natural gas used for moving and treating water in California is relatively insignificant. As a result, it does not

[14] August 2016 Ruling, at p. 1.

appear that this Rulemaking's goal would be advanced by expanding the scope of the proceeding to include natural gas issues.

If you have any questions, please contact Jon Lambeck on our staff at (213) 217-7381 or via email at jlambeck@mwdh2o.com. We would also be happy to meet with you should you have any questions or would like additional information regarding our comments.

Dated: August 22, 2016

Respectfully submitted,

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